

Boc-QAR-AMC ***Fluorogenic Peptide Substrate***

Catalog Number: ES014
Lot Number: QOT02, QOT03

Specifications and Use

- Sequence** ♦ Boc-Gln-Ala-Arg-AMC HCl (Boc-QAR-AMC). Boc: t-Butyloxycarbonyl; 7-Amino-4-methylcoumarin.
- Molecular Mass** ♦ 667.16 Da (including HCl).
- Purity** ♦ 95% based on HPLC.
- Peptide Content** ♦ 95.6%.
- Quantity** ♦ 10 mg. It is sufficient for approximately 1,400 to 14,000 assays using the recommended conditions.
- Recommended Assay Conditions** ♦ A fluorescence plate reader with excitation at 380 nm and emission at 460 nm is recommended for the measurement of the enzymatic activity. Depending upon individual enzymes, the substrate can be used at the final concentrations between 10 to 100 μ M in a total of 100 μ L reaction mixture.
- Applications**
 - ♦ Hydrolysis of Arg-AMC amide bond releases AMC, a highly fluorescent group.
 - ♦ It is an excellent substrate for several serine proteases (see table below). Please see the individual enzyme insert for the specific assay condition.
- Formulation**
 - ♦ Supplied as a stock solution in dimethyl sulfoxide (DMSO) with a concentration of 6.97 mg/mL or 10 mM.
 - ♦ Centrifuge the vial before opening to recover entire contents of the vial. Due to possible sublimation during storage, the buffer volume may decrease over time, however, the product is sold by mass and the amount of substrate will remain constant. To ensure quantitative recovery, we suggest the stock solution be made in the original vial.
- Shipping** ♦ The substrate is shipped with ice packs. Upon receiving, store it immediately at the temperature recommended below.
- Storage**
 - ♦ Samples are stable for up to six months from date of receipt at -20° C to -70° C **in a manual defrost freezer**.
 - ♦ The substrate can be aliquoted and stored at -20° C to -70° C **in a manual defrost freezer** for six months.
 - ♦ **Protect from exposure to direct light.**
 - ♦ **Avoid repeated freeze-thaw cycles.**

Use of Boc-QAR-AMC with R&D Systems' Proteases (r: recombinant)

Protease	Catalog #
r human Matriptase/ST14 Catalytic Domain	3946-SE
r mouse Prostatic/Prss8	2968-SE
r human Spinesin	2495-SE
r mouse Spinesin	1928-SE